

REMARKS/ARGUMENTS

Applicant has received the Office Action dated April 24, 2007 (hereinafter "Office Action"), in which the Examiner: 1) objected to claim 19 because of informalities; 2) rejected claims 28 and 29 under 35 U.S.C. § 112, 2nd paragraph, as being allegedly indefinite; 3) rejected claims 9-15 under 35 U.S.C. § 101 because the claimed invention allegedly is directed to non-statutory subject matter; 4) rejected claims 1-6 and 9-27¹ under 35 U.S.C. § 102(e) as being allegedly anticipated by DeJager et al. (U.S. Pat. No. 6,473,424, hereinafter "DeJager"); 5) rejected claims 7 and 8 under 35 U.S.C. § 103(a) as being allegedly unpatentable over DeJager in view of Li et al. (U.S. Pat. No. 6,381,252, hereinafter "Li"); and 6) objected to claims 28 and 29 as being dependent upon a rejected base claim, but indicated that the claims were otherwise allowable. With this Response, Applicant has amended claims 9-15, 19 and 28. Based upon the amendments and arguments contained herein, Applicant believes this case is in condition for allowance.

I. CLAIMS OBJECTION DUE TO INFORMALITIES

The Examiner objected to claim 19 due to the lack of a period at the end of the claim. Applicant has added the missing period, as suggested by the Examiner, and respectfully requests withdrawal of the objection.

II. REJECTIONS UNDER 35 U.S.C. § 112, 2ND PARAGRAPH

The Examiner rejected claims 28 and 29 as allegedly indefinite, stating that with regard to claim 28 "the occurrence of '1/n of the flow' is vague and indefinite because the value of n is not defined, such that in the cases where the value of n is less than or equal to 0 will produce values that will make the number of flows indefinite." Office Action, p. 2, ¶ 3. Claim 29 was also rejected because it depends upon claim 28. In order to expedite prosecution of the subject application, and without conceding the merits of the rejections, Applicant has

¹ Applicant respectfully notes that although the Examiner stated in the initial summary of the rejections that claims 9-14 and 15-22 were rejected, claims 9-27 were actually listed and discussed in the body of the Office Action.

amended claim 28 to require that “n is greater than zero,” an amendment supported at least by paragraph [0046]. Applicant respectfully submits that the amendment addresses the Examiner’s concern, and respectfully requests withdrawal of the rejections under 35 U.S.C. § 112, 2nd paragraph.

III. REJECTIONS UNDER 35 U.S.C. § 101

The Examiner rejected claims 9 through 15 as allegedly directed to non-statutory subject matter, stating that “the claims fails to mention that the storage medium is a computer readable medium... .” Office Action, p. 3, ¶ 5. In order to expedite prosecution of the subject application, and without conceding the merits of the Examiner’s rejection, Applicant has amended the preambles to recite a “computer-readable” storage medium. Applicant respectfully notes that the amendment is supported at least by paragraphs [0025] and [0026], as well as Figure 2.

Applicant further respectfully notes that amended independent claim 9, and thus claims 10-15 which depend upon claim 9, recite a computer-readable storage medium (and previously a storage medium) “comprising program instructions that are executable by a processor” (emphasis added). Applicant respectfully submits that this recitation within claim 9 negates the Examiner’s assertion that “the claims fails to mention ... that the storage medium is embodied with, encoded with, or stored with computer executable instruction.” Office Action, p. 3, ¶ 5.

For at least these reasons, Applicant respectfully submits that independent claim 9, as amended, and those claims that depend upon it, are all directed to statutory subject matter. Applicant thus respectfully requests withdrawal of the rejections of these claims under 35 U.S.C. § 101.

IV. REJECTIONS UNDER 35 U.S.C. § 102(e)

Regarding the Examiner’s rejection of independent claim 1 as allegedly anticipated by DeJager, the Examiner stated that DeJager teaches, among other things, “preserving the first link for a subsequent packet having the same flow address as the forwarded packet upon determining a desired load change of the

first link is less than a predetermined value.” Office Action, p. 3, ¶ 7. Applicant respectfully traverses the Examiner’s characterization of the cited art, noting that DeJager teaches “determining a stream ID of the packet, and determining whether a prior packet having that stream ID has been distributed to a queue on a port in the group during a predetermined time interval.” DeJager, col. 3, lines 1-5. DeJager further teaches that “[w]here a prior packet having that stream ID has not been distributed to a queue on a port of the group during the predetermined time interval, the method involves allocating the packet to a queue of a port having a lesser load in its queue than a queue of any other port of the group.” DeJager, col. 3, lines 5-9. In other words, DeJager teaches switching to a port with the lowest load of a group when a packet of a given stream has not been sent to a port of the group within a predetermined time interval. The decision of whether or not to switch ports in DeJager is based upon whether a packet was routed within a time interval, not based upon whether “a desired load change of the first link is less than a predetermined value,” as required by claim 1. Thus, DeJager does not teach or even suggest all of the limitations of independent claim 1. Further, no other art cited overcomes the deficiencies of DeJager. For at least these reasons, Applicant respectfully submits that independent claim 1, as well as all claims that depend upon it, are not anticipated by the cited art, and respectfully requests withdrawal of the rejections of these claims under 35 U.S.C. § 102(e).

Regarding the Examiner’s rejection of independent claim 9 as allegedly anticipated by DeJager, the Examiner stated that DeJager “teaches adjust positions of one or more pointers used to partition traffic flow through a multipath network, wherein the positions of the one or more pointers are variable relative to a range of hash units that correspond to flow addresses within the multipath network.” Office Action, p. 4, ¶ 7. Applicant respectfully traverses the Examiner’s characterization of the cited art, noting that DeJager only mentions pointers once, and then only in the context of a pointer to time mark registers (“Periodically, software switches the pointer to use the other time-mark register, clearing that

register first.” DeJager, col. 6, lines 2-4.). DeJager does not teach or even suggest program instructions that cause a processor to “adjust the positions of one or more pointers ... wherein the positions ... are variable relative to a range of hash units ...,” as required by amended claim 9². Thus, DeJager does not teach or even suggest all of the limitations of independent claim 9, as amended. Further, no other art cited overcomes the deficiencies of DeJager. For at least these reasons, Applicant respectfully submits that independent claim 9, as amended, as well as all claims that depend upon it, are not anticipated by the cited art, and respectfully requests withdrawal of the rejections of these claims under 35 U.S.C. § 102(e).

Regarding the Examiner’s rejection of independent claim 16 as allegedly anticipated by DeJager, the Examiner stated that DeJager teaches, among other things, “altering one or more conditions by which the data packet is selectively directed (see column 4 lines 34 – 37).” Office Action p. 5, ¶ 7. Applicant respectfully traverses the Examiner characterization of the cited art, noting that the cited passage states, “The load balancing of the present invention is preferably dynamic, that is, packets from a given stream may be forwarded on different ports depending upon each port’s current utilization.” DeJager, col. 4, lines 34-37. Neither the cited passage, nor any other passage within DeJager teaches or even suggests “altering one or more of the conditions by which the data packet is selectively directed,” as required by independent claim 16. Thus, DeJager does not teach or even suggest all of the limitations of independent claim 16. Further, no other art cited overcomes the deficiencies of DeJager. For at least these reasons, Applicant respectfully submits that independent claim 16, as well as all claims that depend upon it, are not anticipated by the cited art, and respectfully requests withdrawal of the rejections of these claims under 35 U.S.C. § 102(e).

² Applicant respectfully notes that the amendment to claim 9 addresses the Examiner’s § 101 rejection, and is not in response to the Examiner’s § 102(e) rejection of this claim.

Regarding the Examiner's rejection of independent claim 23 as allegedly anticipated by DeJager, the Examiner stated that DeJager teaches, among other things, "a plurality of routers ... , selectively directing a first packet along a link coupled thereto in accordance with one or more variable pointers included with the router, and record the status of the one or more variable pointers to direct a second packet having the same source and flow addresses as the first packet along the same link." Office Action, p. 6, ¶ 7. Applicant respectfully traverses the Examiner's characterization of the cited art, reiterating that DeJager only mentions pointers once in the context of a pointer to time mark registers. See DeJager, col. 6, lines 2-4. DeJager does not teach or even suggest a router configured to "record the status of the one or more variable pointers to direct a second packet," as required by independent claim 23. Thus, DeJager does not teach or even suggest all of the limitations of independent claim 23. Further, no other art cited overcomes the deficiencies of DeJager. For at least these reasons, Applicant respectfully submits that independent claim 23, as well as those claims that depend upon it, are not anticipated by the cited art, and respectfully requests withdrawal of the rejections of these claims under 35 U.S.C. § 102(e).

Regarding the Examiner's rejection of independent claim 27 as allegedly anticipated by DeJager, the Examiner stated that DeJager teaches "a router (see figure 1 box X₂); periodically change transmission control connections among links of different lost rates which are coupled to the router (see column 4 line 34 – 37, switching between different ports based on the current port utilization)." Office Action, p. 7, ¶ 7. Applicant respectfully traverses the Examiner's characterization of the cited art, noting again that the cited passage merely describes dynamic load balancing wherein packets from a given stream may be forwarded on different ports depending upon each port's current utilization. DeJager does not teach or even suggest "a means for modifying designations of hash numbers associated with the links such that 1/n of the flows switch from the lowest-loss link to the highest-loss link and the remaining flows switch from a

higher-loss link to a lower-loss link,” as required by independent claim 27, as amended.³ Thus, DeJager does not teach or even suggest all of the limitations of independent claim 27. Further, no other art cited overcomes the deficiencies of DeJager. For at least these reasons, Applicant respectfully submits that independent claim 27 is not anticipated by the cited art, and respectfully requests withdrawal of the rejection of this claims under 35 U.S.C. § 102(e). Further, because claims 28 and 29 depend upon independent claim 27, Applicant respectfully requests that the objections to these claims as depending upon a rejected base claim also be withdrawn.

V. REJECTIONS UNDER 35 U.S.C. § 103(a)

Regarding the rejections of dependent claims 7 and 8 as allegedly obvious over DeJager in view of Li, Applicant respectfully notes that because these claims include all of the limitations of independent claim 1, and because none of the cited art, either alone or in combination, teaches or even suggest all of the limitations of independent claim 1 for at least the reasons presented above, dependent claims 7 and 8 are not rendered obvious over the cited art. Applicant thus respectfully requests withdrawal of the rejections of these claims under 35 U.S.C. § 103(a).

VI. CORRECTION TO THE SPECIFICATION

Applicant has discovered an inadvertent typographical error in paragraph [0045] of the specification, which has been corrected. No new matter has been introduced by this correction.

VII. CONCLUSION

Applicant respectfully submits that for at least the reasons presented above, all claims are in condition for allowance. In the course of the foregoing discussions, Applicant may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be

³ Applicant respectfully notes that the amendment to claim 27 addresses the Examiner's § 112 rejection, and is not in response to the Examiner's § 102(e) rejection of this claim.

ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicant respectfully requests reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,

/Roberto de Leon/

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